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<input type="checkbox"/>	L3	L1 WITH (MUTA\$4 OR VARIANT OR SUBSTITU\$4)	4
<input type="checkbox"/>	L1	THIELAVIA WITH (ENDOGLUCANASE OR CELLULASE)	192

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☐ 1. Document ID: US 20050009166 A1

Using default format because multiple data bases are involved.

L3: Entry 1 of 4

File: PGPB

Jan 13, 2005

PGPUB-DOCUMENT-NUMBER: 20050009166

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050009166 A1

TITLE: Cellulase variants

PUBLICATION-DATE: January 13, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Andersen, Kim Vilbour	Copenhagen		DK	
Schulein, Martin	Copenhagen		DK	
Dela, Hanne	Copenhagen		DK	
Christiansen, Lars	Virum		DK	
Damgaard, Bo	Lausanne		CH	
Von der Osten, Claus	Lyngby		DK	

US-CL-CURRENT: [435/209](#); [435/252.3](#), [435/320.1](#), [435/69.1](#), [536/23.2](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">KIMC</a>	<a href="#">Draw. De</a>
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☐ 2. Document ID: US 20030092097 A1

L3: Entry 2 of 4

File: PGPB

May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030092097

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030092097 A1

TITLE: CELLULASE VARIANTS

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
ANDERSEN, KIM VILBOUR	COPENHAGEN		DK	
SCHULEIN, MARTIN	COPENHAGEN		DK	

CHRISTIANSEN, LARS	VIRUM	DK
DAMGAARD, BO	LAUSANNE	CH
VON DER OSTEN, CLAUS	LYNGBY	DK

US-CL-CURRENT: 435/69.1; 435/195, 435/200

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw De
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☐ 3. Document ID: US 6146428 A

L3: Entry 3 of 4

File: USPT

Nov 14, 2000

US-PAT-NO: 6146428

DOCUMENT-IDENTIFIER: US 6146428 A

TITLE: Enzymatic treatment of denim

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw De
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☐ 4. Document ID: US 20050009166 A1, WO 9812307 A1, AU 9742007 A, EP 937138 A1, BR 9711479 A, CN 1230987 A, JP 2000514311 W, US 20030092097 A1, JP 2004065255 A, JP 3532576 B2

L3: Entry 4 of 4

File: DWPI

Jan 13, 2005

DERWENT-ACC-NO: 1998-217251

DERWENT-WEEK: 200506

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TITLE: Cellulase enzyme variants - having amino acid changes which improve properties e.g. activity, sensitivity to surfactants, pH optimum or stability

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw De
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L1 WITH (MUTA\$4 OR VARIANT OR SUBSTITU\$4)

4

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=> S THIELAVIA (5A) (ENDOGLUCANASE OR CELLULASE)  
L1 54 THIELAVIA (5A) (ENDOGLUCANASE OR CELLULASE)

=> S L1 (5A) (MUTA? OR VARIANT OR SUBSTITU?)  
10 FILES SEARCHED...

L2 6 L1 (5A) (MUTA? OR VARIANT OR SUBSTITU?)

=> DUP REM L2  
PROCESSING COMPLETED FOR L2  
L3 4 DUP REM L2 (2 DUPLICATES REMOVED)

=> D 1-4

L3 ANSWER 1 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
DUPLICATE 1  
AN 1998-06599 BIOTECHDS  
TI New cellulase enzyme variants;  
enzyme engineering  
AU Andersen K V; Schyelein M; Christiansen L; Damgaard B  
PA Novo-Nordisk  
LO Bagsvaerd, Denmark.  
PI WO 9812307 26 Mar 1998  
AI WO 1997-DK393 17 Sep 1997  
PRAI DK 1996-1013 17 Sep 1996  
DT Patent  
LA English  
OS WPI: 1998-217251 [19]

L3 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1995:422057 HCAPLUS  
DN 122:234037  
TI Isolation and properties of a thermostable endoglucanase from a  
thermophilic mutant strain of Thielavia terrestris  
AU Kvesitadze, Edisher G.; Lomitashvili, Tamara B.; Khutsishvili, Maia P.;  
Lamed, Raphael; Bayer, Edward A.  
CS Inst. Plant Biochem., Tbilisi, 380059, Georgia  
SO Applied Biochemistry and Biotechnology (1995), 50(2), 137-43  
CODEN: ABIBDL; ISSN: 0273-2289  
PB Humana  
DT Journal  
LA English

L3 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1990:154151 HCAPLUS  
DN 112:154151  
TI The \*\*\*cellulase\*\*\* complex of the thermophilic ascomycete,  
\*\*\*Thielavia\*\*\* terrestris: production, \*\*\*mutation\*\*\*, and  
characterization of the component enzymes  
AU Zitomer, Stephanie W.  
CS UMDNJ, Rutgers, State Univ., New Brunswick, NJ, USA  
SO (1989) 314 pp. Avail.: Univ. Microfilms Int., Order No. DA8923634  
From: Diss. Abstr. Int. B 1990, 50(7), 2762-3  
DT Dissertation

LA English

L3 ANSWER 4 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

AN 1987-05586 BIOTECHDS

TI Cellulase screening by iodine staining: an artefact;  
hydrolysis zones around colonies on cellulose-agar media are caused by starch hydrolysis and not cellulolysis

AU Zitomer S W; Eveleigh D E

LO Department of Biochemistry and Microbiology, Cook College, Rutgers University, New Brunswick, NJ 08903, USA.

SO Enzyme Microb.Technol.; (1987) 9, 4, 214-16

CODEN: EMTED2

DT Journal

LA English

=> D 1-4 AB

L3 ANSWER 1 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

AB An enzyme mutant is claimed, which comprises a catalytic core domain exhibiting cellulolytic activity which is derived from a naturally occurring parental cellulase by amino acid residue substitution, insertion or deletion or any combination, and with cellulase numbering an A, S or T residue at position 5, an F or Y residue at position 8, an F, W or Y residue at position 9, a D residue at position 10, and a D residue at position 121. Also claimed are: a method for reducing the thermostability of a cellulase, which involves removal of amino acid substitution, deletion or insertion of 1 or more disulfide bridges; a cellulase mutant derived by substitution, insertion and/or deletion mutagenesis at 1 or more residues; a cellulase mutant with altered anion tenside sensitivity; a \*\*\*cellulase\*\*\* \*\*\*mutant\*\*\* from *Humicola insolens*, \*\*\**Thielavia*\*\*\* *terrestris*, *Pseudomonas fluorescens*, *Crinipellis scabellia*; and a method for improving a cellulolytic enzyme e.g. by altering the pH profile or specific activity or stability. The cellulases can be used in surfactants, etc. (114pp)

L3 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

AB A heat-stable enzyme was isolated from the cellulase complex of a thermophilic strain of the micromycete *Thielavia terrestris*. The purified enzyme exhibited both endoglucanase and xylanase activities and had a mol mass of 69,000 Daltons and an isoelec. point of 6.4. When the cells were grown at 48.degree.C, the initial activity of the purified enzyme using CM-cellulose as a substrate was 150 nkat/mg and the Michaelis const. was 6.6 g/L. The heat stability of the enzyme was high, losing only 20% of the initial activity after a 6-h incubation at 65.degree.C. When cultures were grown on microcryst. cellulose and xylose was added after 48 h of growth, endoglucanase and xylanase activities were more than doubled. Similar increases in these activities were obsd. by growing the cultures on straw.

L3 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Unavailable

L3 ANSWER 4 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

AB Cellulolytic fungi, *Trichoderma reesei* QM6a, hypercellulolytic RUT C30, \*\*\*cellulase\*\*\* -negative \*\*\*mutant\*\*\* QM9136 and thermophilic \*\*\**Thielavia*\*\*\* *terrestris* NRRL 8126, as well as crude endoglucanases and amylases, were incubated on cellulose-agar media, and hydrolysis zones were visualized by iodine (KI/12) staining. However, hydrolysis zones were shown to be due to degradation of the starch in the agar and not to cellulolysis as has previously been suggested. Crude amylases and cellulases produced identical iodine-visualized hydrolysis zones in agar alone and in Avicel-agar. Equivalent zones were produced by these enzymes in starch media. No zones were observed when amylase-digested agar or Gelrite was used as the gelling agent or when purified cellobiohydrolase (EC-3.2.1.91) and endoglucanase (EC-3.2.1.4) were used. Cellulase screening is best obtained by growing cultures on acid-swollen or crystalline cellulose with Gelrite as gelling agent, followed by incubation at elevated temp. to enhance visualization of hydrolysis zones while restricting fungal growth, but without additional staining. (22 ref)

=> DIS HIS

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FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS,  
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